

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert T. Clarke on April 7, 2011.

The application has been amended as follows:

Please amend claim 12 as follows:

Claim 12: (Currently Amended) A multiband antenna array for a mobile radio equipment, comprising:

a planar patch antenna defining a plane and having ~~a plurality of resonances~~ a first branch that resonates in a first frequency band and a second branch that resonates in a second frequency band and is further coupled to a ground connection and to a high-frequency interface, the planar patch antenna having a first side and a second side, the first side being adjacent to the second side; and

a plurality of parasitic transmitters, wherein said plurality of parasitic transmitters are located (i) marginal to the planar patch antenna, (ii) outside of the planar patch antenna, and (iii) in the plane defined by the planar patch antenna, wherein:

- (i) each of the plurality of parasitic transmitters are embodied so as to be free of said high-frequency interface;
- (ii) said plurality of parasitic transmitters are arranged as ~~line-type~~ line-shaped conductor structures; and
- (iii) at least one of said plurality of parasitic transmitters which forms a bend includes:
  - (a) a first three dimensional ~~line-type~~ line-shaped portion that extends in a first dimension in the plane, the first three dimensional ~~line-type~~ line-shaped portion running parallel to the first side; and
  - (b) a second three dimensional ~~line-type~~ line-shaped portion that extends in a second different dimension in the plane, the second three dimensional ~~line-type~~ line-shaped portion running parallel to the second side, wherein conductor structures of the planar patch antenna are arranged as ~~sheet-type~~ sheet-shaped conductor structures.

#### **Allowable Subject Matter**

- 2. The following is an examiner's statement of reasons for allowance:
- 3. Claims 12-17 and 19-22: The primary reason for the allowance of the claims is the inclusion of the limitation "at least one of said plurality of parasitic transmitters which forms a bend includes: a first three dimensional line-shaped portion that extends in a first dimension in the plane, the first three dimensional line-shaped portion running parallel to the first side; and a

second three dimensional line-shaped portion that extends in a second different dimension in the plane, the second three dimensional line-shaped portion running parallel to the second side, wherein conductor structures of the planar patch antenna are arranged as sheet-shaped conductor structures” in all the claims which is not found in the prior art references.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT KARACSONY whose telephone number is (571)270-1268. The examiner can normally be reached on M-F 7:30 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Jacob Y. Choi can be reached on 571-272-2367. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. K./  
Examiner, Art Unit 2821

/Jacob Y Choi/  
Supervisory Patent Examiner, Art Unit 2821